

REVIEWS.

ART. XII.—*A System of Surgery.* By J. M. CHELIUS, Doctor of Medicine and Surgery, Public Professor of General and Ophthalmic Surgery, Director of the Chirurgical and Ophthalmic Clinic in the University of Heidelberg, &c. *Translated from the German, and accompanied with Additional Notes and Observations.* By JOHN F. SOUTH, Late Professor of Surgery to the Royal College of Surgeons of England, and one of the Surgeons to St. Thomas's Hospital. 3 vols. 8vo. pp: 2148. Philadelphia, 1847.

New Elements of Operative Surgery. By ALF. A. L. M. VELPEAU, Professor of Surgical Clinique of the Faculty of Medicine of Paris, Surgeon of the Hospital of La Charité, Member of the Royal Academy of Medicine, of the Institute, &c. Carefully Revised, entirely Remodeled and Augmented with a *Treatise on Minor Surgery.* Illustrated by over 300 Engravings, incorporated with the text: accompanied with an Atlas in quarto of 22 Plates, representing the Principal Operative Processes, Surgical Instruments, &c. First American, from the last Paris Edition. Translated, by P. S. TOWNSEND, M. D., Late Physician to the Seamen's Retreat, Staten Island, New York. Augmented by the addition of several hundred pages of entirely New Matter, comprising all the Late Improvements and Discoveries in Surgery, in America and Europe, up to the present time. Under the supervision of, and with Notes and Observations by VALENTINE MOTT, M. D., Professor of the Operations of Surgery, with Surgical and Pathological Anatomy, in the University of New York, Foreign Associate of the Académie Royale de Médecine of Paris, of that of Berlin, Brussels, Athens, &c. In 3 vols. 8vo: pp. 3180. New York, 1845-47.

THE two works which we have placed in association at the head of this article, have some striking features in common. They are both recent translations. They are both systematic compilations of great merit. They both assume to furnish a full-length portrait of the Surgery of the day; one of them having special reference to Operative Surgery; the other, without excluding this, giving more particular consideration to Surgical Pathology. Both works, in the original, stand at the head of their class; the one, in the surgical literature of France; the other, in that of Germany. They have both received, in the course of translation, a strongly marked extrinsic impress; the one, from the Surgery of America, or at least from an American Surgeon; the other, from the Surgery of Great Britain. They have both been notably enlarged; and as now presented to us, they both appear to have lost something of their primitive unity of purpose, and to have been diverted in some degree from the main purpose for which they were originally written.

Every author has, of course, the right to present his own productions to the public in such a shape as he thinks best calculated to give clear expression to his facts, or to subserve the ends of science. But we have some doubts as to how far the editor, translator, or commentator of another man's

works, should be indulged in altering their general scope. In books, as in pictures, statues, and buildings, there should be an artistic finish, a mutual relation and dependence of parts; with some rising into full relief, and others receding into shade, in just accordance with their relative importance. This rule, we admit, is far from being generally observed by our professional writers; in some of whose productions it would puzzle Longinus himself to find the slightest attention paid to any other rules of composition, than such as relate to the mere grammatical construction of sentences; and even these rules are too often disregarded. But where an author has evinced much skill in the arrangement of his materials, marked out his ground, reared his superstructure, and given to each portion of his performance its due consideration, it becomes the part of the critic, as well as of the public, to protect him against the ruthless innovations of remodelers, who, without perceiving the symmetrical construction of his whole work, would engraft notes and paragraphs and opinions upon it, with as little compunction or regard to relevancy, as if they were compiling for a daily newspaper. The productions of a useful writer are a sort of public property, which no man has a right to convert into a clothes horse upon which to suspend his wet sheets and washed linen.

We do not throw out these thoughts with more special reference to the works now before us, than to some others that are popular in our profession. The notes, comments, and additional materials, that have been incorporated with the work of M. Velpeau, as well as with that of Chelius, may, in some respects, enhance the value of the original. And the editors, in both instances, have given plausible reasons for the liberties they have taken. Thus, says Dr. Mott, in a letter addressed to M. Velpeau, and in his own peculiar manner:—

"I have taken thus the liberty to enter my name as a *compagnon de voyage* with you, upon the great high-road of the science, where it has been so long our cherished pride, fortune, and pleasure to travel. Because I felt that in associating my labours with those which have received the approbation of your judgment, and which your genius and untiring industry have wrought out in your estimable work, as an enduring monument to your fame, I might find an appropriate place and guarantee for indulging the ambition that I, like others, must naturally have of seeing legitimately transmitted, through an orthodox and approved organ, for the judgment of an impartial posterity, an authentic account at least (if only at best but an *abrégé* one) of my *stewardship* also in the great field of surgical science. This, so far as concerns myself, (and independent of perhaps paramount considerations, to give wider diffusion upon this continent to your great and useful work.) I felt admonished by the time of life at which I have arrived, to be due as well to myself and my own reputation, as to my country and profession.

"As such, then, my dear sir, I have ventured thus, while life is so short and art so long, to ask for myself a niche in the great edifice of surgical facts and truths of which you are the constructor and owner. I have to ask of you the privilege that I may be allowed within this storehouse, containing so much of the treasures of our science, to make safe deposit and registration of the detached fragments of the scaffolding at least, of that extended work of my own on Operative Surgery, which, as you are aware, I have for so long a time meditated, and of which these offerings must for the present be received as the pledge."—(Vol. I. pp. 10, 11.)

The first two volumes of M. Velpeau's *Surgery*, as translated by Dr. P. S. Townsend, of New York, with notes, &c., by Dr. Mott, have been for some time before the public; the last volume has appeared within the past few months. The work, from its size alone, has been one of great labour. As it now stands, it occupies three overgrown octavo volumes, the first of

which contains 914 pages; the second, 1190; and the third, not fewer than 1175 pages.

To one at all familiar with the original, as it came from its author's hands, it might have appeared already sufficiently circumstantial and voluminous. The advancements in the art of surgery, since its publication, the restless desire for improvements, and the public taste for novelties, would probably have asked of the author himself, had he been about to prepare a third edition of his book, some notice of newly devised operations, or some new modifications of old ones; and the medical public would doubtless have accepted with good grace, as much as this, or even somewhat more, from the editors of the present translation. But they have ventured far beyond this. "No pent up Utica contracts their powers." And if they have not "the whole continent" to themselves, they occupy at least a very considerable portion of it. "The entire *new matter* prepared for this edition," to use the words of Dr. Townsend, "will make, altogether, in the body of the work, some 1200 to 1500 pages."

Dr. Mott's contributions are; 1st, a short preface to the first volume; 2d, the republication of most, if not the whole, of his more important cases and operations in detail, as taken from the several medical periodicals in which they had originally been presented to the public; 3d, a chapter of about a hundred pages on the management of aneurisms and kindred topics; 4th, a short paper on rigidity of the lower jaw, which is the only contribution from his own pen that we have met with in the third volume. But, by the hand of his associate, Dr. Townsend, he has caused to be inserted in this, as in the other two volumes, many detached notes and comments on the text, with occasional reports of cases. So that in the whole work, without attempting great precision, we may estimate Dr. Mott's *addenda* at about 200 pages.

Dr. Townsend's share of the 1500 pages of new matter is not so easily identified. Besides innumerable shorter passages, paragraphs, and reports of cases and operations, collected from his friends, or drawn from his own resources, or condensed from the miscellaneous papers of M. Velpeau, his principal contributions to the first volume, are: 1st, a preface; 2d, appendices on strabismus, tenotomy, myotomy, &c., occupying some thirty pages or more; and, 3d, a concluding American appendix of nearly ninety pages, mostly devoted to anaplastic procedures. In the second volume, besides a preface, he has inserted a miscellaneous supplement of eighty pages, with notes and observations without number. In the last volume we find, also, another preface from his pen, with a multiplicity of notes dispersed throughout the text. In short, his task has been an arduous one. He has had to act many parts in this performance: 1st, as translator, in which capacity he has succeeded to the satisfaction of his associate; 2d, as amanuensis to Dr. Mott, in which he has also performed a useful part; 3d, as compiler and commentator, in which he has shown but little discretion, no system, and an insufficient acquaintance with surgery, to prevent him from mistaking trifles for affairs of moment. His fourth part has been that of panegyrist; here "Richard is himself again." We cannot repress the temptation of favouring our readers with one or two of his boldest strokes in this line.

"I feel constrained also to add, that the accomplishment of this part of my labour is one to which considerations of love of country add in my mind no slight degree of value. For young as our country is in history, and filled as its annals are with great names, both in the heroic period of its settlement, and in its sub-

sequent ages of military renown, national emancipation, and diffusion of the arts, there is in my humble judgment no name that adorns those annals either in the battle field, or in the councils of government, or in its diplomacy, that has added more sterling reputation and abiding lustre to the intrinsic glory and future fame of America than that of VALENTINE MOTT, unaided and ungilded though that name may be by the insignia of office or of power.

"For one who in his duties as a Christian and a man of science, has done so much personally in the active field of benevolence, and struck out such noble discoveries and new paths to enable us more effectually to alleviate the miseries of our fellow creatures, there will be a balm, as we believe, that will rest upon his memory in after time, less dazzling perhaps, but certainly full as enduring, and far more endearing to future generations, than any that the most ardent homage of patriotism could feel inspired with, for the glare of the most brilliant civic or military exploits."—(Vol. II. p. 5.)

A portion of the following will be found quite as characteristic as the foregoing:—

"To our countryman, Dr. Brashear, who was a pupil of the eminent Dr. Ridgely, of the continental army of the Revolutionary war, and also a student at the University of Philadelphia, under Dr. Rush and other famous men of that day, are we indebted, as is now ascertained, for the *first* operation, or amputation of the thigh at the hip joint or *coxo femoral articulation* ever performed in America, and which was followed with complete success. This occurred as early as the year 1806, *only three years* after the illustrious Larrey had revived and perfected this operation in the campaigns of Napoleon. (See text of M. Velpeau on this subject, p. 637, &c. in Vol. II. of this work.)

"With that self-neglect of one's own rights, that is ever a prominent characteristic of the diffidence of men of genius, and from his having early in life withdrawn from active practice, Dr. Brashear had never published this case. Dr. Mott, therefore, as is seen in his case of *coxo-femoral disarticulation* in Vol. II. of this work, had hitherto supposed that he was the surgeon who in this country had first performed this important operation. With a magnanimity which ever belongs to him, and which we trust will serve as an emphatic lesson to those who in their malignity would rob and calumniate both the dead and the living, Dr. Mott cheerfully abstracts the plume from his own honoured brows, that can spare many and much more like this, and affixes it upon the name of the gentleman to whom it rightly belongs."—(Vol. III. p. iv.)

M. Velpeau's portion of the work before us, is already too well known to require of us either comment or analysis. Few books on operative surgery have ever acquired—none, perhaps, have ever deserved, a greater reputation, than the one upon which the present translation is founded. Without claiming to be complete in all its parts, and without assuming to assign the exact measure of credit to every individual among the host of contributors to the general advancement of modern surgery, it nevertheless comes as nearly up to this, as the extent and nature of the researches involved in the task, the French spirit of nationality, and M. Velpeau's rather prurient desire to stand forth as an extensive innovator and improver himself, could reasonably be expected to allow. His work is emphatically the great representative of the operative surgery of the present century, as that of Heister was of the century that is past. It will, probably, in future editions, be for the most part disencumbered from the incrustations of the present version; and once again restored to its fair proportions, it must continue, for time to come, to occupy its present position as a book of frequent reference.

We must now notice, as briefly as possible, the arrangement of the materials composing these volumes.

M. Velpeau has distributed his materials under four great divisions or

titles; the first, embracing operations in general; the second, minor surgery; the third, general operations, or such as apply to different parts of the body in common; the fourth, special operations, or such as apply only to particular regions or organs.

TITLE FIRST, treats under distinct heads; 1, of classification; 2, the nature of operations; 3, the care required in these; 4, the conditions necessary to them; and 5, the consequences resulting from them.

TITLE SECOND, is divided into two parts; 1, dressing and bandaging, which is subdivided into eleven chapters; and 2, minor operations, which is again subdivided into six chapters.

TITLE THIRD, at which, properly speaking, the great business of operative surgery begins, is divided into two parts; the first, referring to elementary operations; and the second, to complex operations. This last, extending over the greater part of the whole work, is subdivided into twelve sections, occupying a good portion of the first, the whole of the second, and a part of the third volume.

The *first section* is occupied with operations upon the cuticular surface.

The *second* treats of operations for deformities, and is subdivided into five chapters:—1. Morbid cicatrices; 2. Subcutaneous bridges; 3. Deformities from contracted tendons and muscles; 4. Deformities from alterations in ligaments and aponeuroses; and 5. Deformities from alterations in the skeleton.

The *third section* is devoted to anaplasty, the details of which are scattered over twenty chapters.

The *fourth* opens with the second volume, and is occupied with operations upon the arteries in general. It is subdivided into three chapters:—1. Anatomical remarks; 2. Spontaneous termination of lesions of arteries; 3. Treatment of arterial lesions.

Section *fifth*, treats of operations on particular arteries, and is subdivided into four chapters.

Section *sixth*, operations upon the veins, is mainly devoted to the management of varices.

Section *seventh*, referring to operations on the lymphatics, is disposed of in a single paragraph.

Section *eighth*, operations on the nerves, is also a short section, and divided into two chapters:—1. Operations on the nerves of the head and neck; 2. On the nerves of the limbs.

Section *ninth*, treats of amputations, and is subdivided into part first, amputations in general; and part second, amputations in particular.

Section *tenth*, excision of bones, is divided into part first, excision in the continuity of bones; and part second, excision of the articulations.

Section *eleven*, trephining, treats in three chapters; 1, Of trephining the head; 2. The bones of the trunk; and 3. Those of the limbs.

Section *twelfth*, tumours, is very voluminous, and subdivided into thirteen chapters, which we need not stop to specify.

TITLE FOURTH, on special operations, occupies the greater portion of the last volume. It is divided into nine parts, the most of which are again subdivided into chapters. *Part first*, treats of operations about the head and face. *Part second*, operations about the neck. The *third* treats of operations about the chest; the *fourth*, about the abdomen; the *fifth*, treats of hernia; the *sixth*, of operations for diseases of the genital organs; the *seventh*, of calculi; the *eighth*, of operations for diseases of the urethra; the *ninth*, of operations for diseases of the rectum.

With this general enumeration of subjects, we must, for the present, leave these volumes, and turn to those of Chelius; reserving what we have yet to offer in regard to the contents of the first of these works, until we are prepared to speak of them in connection with the contents of the second.

The manual of Professor Chelius has long been a favourite text-book of surgery in the German schools. It was first presented to the public in 1821. It has undergone six editions under the immediate supervision of its author; and, by the favour of translations, it has been the means of diffusing some general notion of German surgery, and of German surgical writers, throughout the rest of Europe.

It appears never to have been the design of Chelius to prepare a complete system of surgery; his object being, as he tells us in the preface to his first edition, to furnish for the use of his pupils, a short and clear description of surgical diseases, and of the modes of treating these, in connection with a well-arranged and thorough system of surgical bibliography. And although his work since its first appearance has undergone many modifications and improvements, in keeping with the progress of surgical knowledge, yet, up to the last edition of the original, we find it still preserving its primitive character as a manual. But in some of the translations, particularly in the French version by M. Pigne, and in the present English version by Mr. South, it has in some degree lost this character, and by their numerous comments and annotations, it has, at length, grown into a voluminous system.

M. Pigne, in his version of the fourth edition, has incorporated with the text much of the surgery of Dupuytren and of other masters of the French school, and the author himself, in his later editions, has adopted some part of these materials. Mr. South again, in his version of the sixth edition, has still further augmented the work with the results of his own extensive observation, with selections from the records of British Surgery, and with no small amount of useful and well-digested matter from the writers and practitioners of the present day, both of Great Britain and America. Inso-much that the work, as he has now presented it to us, might as well have been entitled "South's Commentaries on the Elements of Surgery," as a "System of Surgery," by Chelius himself.

It is not our purpose, after what we have already said, to express any opinion on the course which Mr. South has marked out for himself in thus materially altering the general scope and character of the original work. He must be the exponent of his own views on this point.

"Had I confined myself to a mere translation of my original, many important points must have been omitted, and the object for which I undertook the publication of the handbook could not have been attained. I was therefore obliged to resort to annotations and comments, the result of my own experience and reading, for the purpose of filling up and enlarging the author's short notices, so as to render them more generally useful both to the student and the practitioner. In doing this I have far exceeded the limits I had originally proposed to myself, but the subject is so important, and fresh matter was so constantly at hand, that my great difficulty has been in restricting my work within present bounds.

"I shall be charged, I fear, with having buried my author beneath a mass of notes and comments. They are indeed numerous, and they might occasionally have been made shorter, had I condensed, in my own words, the opinions of the authors I have cited. To this practice, however, though not uncommon, I am utterly opposed. The meaning of a writer ought to be best set forth in his own words, and if others attempt to convey his meaning briefly, they not unfrequently fail to declare his opinions, or they altogether misrepresent them. I have, there-

fore, with but few and unimportant exceptions, quoted the statements of authors in their original words. I have also, as far as possible, endeavoured to award to the originators of new modes of practice, their just meed of credit; and if, as may occasionally have happened, I have passed by unnoticed any of the leading surgical writers of the British schools, I hope on a future opportunity to repair my seeming inattention.—(Vol. I. pp. 9, 10.)

Before proceeding to a more intimate acquaintance with the contents of these volumes, it may be well to observe, that the principal text is regularly divided, for the sake of easy reference, as well as for the saving of words, into a series of distinctly numbered paragraphs; and that the less important notes and observations of the author, in common with the additional materials furnished by the translator, are appended to the paragraphs to which they respectively relate, and are printed in smaller type, so that the body of the work may be read either continuously, or in connection with the annotations, as may best serve the purpose of the early student, or that of the inquiring practitioner.

But the peculiar feature of this work, and that which adds most to its value as a book of reference, is its copious surgical bibliography. The author has placed at the head of every chapter and other subdivision, and elsewhere as occasion seemed to require, a list of the most important books that have been published upon the subject, giving not only the title and date of publication of such as he may himself have had occasion to consult, but also of such others as he had any knowledge of; so as to make his series of references as full as possible. Mr. South does not appear to have followed him very assiduously in this department of his labours. He has failed to mention some well-known British writers. But the American editor, Dr. Norris, has very judiciously in great part made up for this deficiency. For, without attempting further to encumber the work with additional annotations, he has supplied numerous references to such of the surgical writers of Great Britain and America, as appeared to him worthy of notice, and to have been overlooked by the author and translator.

Professor Chelius very justly observes, that the distinction between external and internal diseases which has been taken as the ground of difference between medicine and surgery, is entirely without meaning. He would attempt to discover some general characteristics of disease, upon which to found a nosological distinction between these two great branches of the healing art. In so doing, he would exclude from surgery the whole group of functional disorders; and include in it only *such of the organic diseases as have their seat in parts accessible to our organs of touch, or such as allow of the employment of mechanical means for their cure*.

We shall not stop to examine, very minutely, this new ground of difference between medicine and surgery. The author himself is not strenuous in his observance of it. He breaks through it, at the very onset, in treating of inflammation. But we may remark in passing, that it is scarcely more definite than the one which he repudiates; and it has the additional disadvantage of excluding from the province of surgery, certain diseases of a functional character, such as superficial neuralgias, spasmodic affections of the muscles, constitutional disturbances, originating in external diseases, and other affections, which, by common consent, are assigned to the surgeon. The author, indeed, does not neglect to notice the whole of these; but in following out his plan, he alludes to them, for the most part, only in an incidental manner, and not so directly as he might have done, had he not felt himself cramped by his attempt at arranging surgical diseases in accordance with what he considers their internal and actual agreement.

Surgical diseases, he observes, may depend, "1, on the disturbance of organic connection; 2, on the unnatural union of parts; 3, on the presence of foreign bodies; 4, on the degeneration of organic parts, or on the production of new structures; 5, on the entire loss; and 6, on the superfluity of organic parts."

Starting with this view, as furnishing the fundamental ground for his nosological arrangement, and admitting inflammation, as it were by necessity, at the head of these, he arranges them under the eight following divisions, viz:

I. DIVISION.—*Of inflammation.*

1. *Of inflammation in general.*
2. *Of some peculiar kinds of inflammation.*
 - a. Of erysipelas; b. Of burns; c. Of frost-bite; d. Of boils; e. Of carbuncle.
3. *Of inflammation in some special organs.*
 - a. Of inflammation of the tonsils; b. Of the parotid gland; c. Of the breasts; d. Of the urethra; e. Of the testicle; f. Of the muscles of the loins; g. Of the nail joints; h. Of the joints, viz.
 - a. of the synovial membrane; b. of the cartilages; c. of the joint-ends of the bones, viz., aa. in the hip-joint; bb. in the shoulder-joint; cc. in the knee-joint; and so on.

II. DIVISION.—*Diseases which consist in a disturbance of physical connection.*

- i. *Fresh solutions of continuity.*
 - A. Wounds; B. Fractures.
- ii. *Old solutions.*
 - A. Which do not suppurate, viz.
 - a. False joints; b. Hare-lip; c. Cleft in the soft palate; d. Old rupture of the female perineum.
 - B. Which do suppurate, viz.
- i. *Ulcers.*
 1. In general.
 2. In particular.
 - a. Atonic; b. Scorbutic; c. Scrofulous; d. Gouty; e. Impetiginous; f. Venereal; g. Bony ulcers or caries.
- ii. *Fistulas.*
 - a. Salivary fistula; b. Biliary fistula; c. Fæcal fistula and artificial anus; d. Anal fistula; e. Urinary fistula.
- iii. *Solutions of continuity by changed position of parts.*
 1. Dislocations; 2. Ruptures; 3. Prolapses; 4. Distortions.
- iv. *Solutions of continuity by unnatural distension.*
 1. In the arteries, aneurisms; 2. In the veins, varices; 3. In the capillary-vascular system, teleangiectasis.

III. DIVISION.—*Diseases dependent on the unnatural adhesion of parts.*

1. Anchylosis of the joint-ends of bones; 2. Growing together and narrowing of the aperture of the nostrils; 3. Unnatural adhesion of the tongue; 4. Adhesion of the gums to the cheeks; 5. Narrowing of the œsophagus; 6. Closing and narrowing of the rectum; 7. Growing together and narrowing of the prepuce; 8. Narrowing and closing of the urethra; 9. Closing and narrowing of the vagina and of the mouth of the womb.

IV. DIVISION.—*Foreign bodies.*

1. *Foreign bodies introduced externally into our organism.*
 - a. into the nose; b. into the mouth; c. into the gullet and intestinal canal; d. into the wind-pipe.
2. *Foreign bodies formed in our organism by the retention of natural products.*
 - A. Retentions in their proper cavities and receptacles.

- a. Ranula; b. Retention of urine; c. Retention of the fœtus in the womb or in the cavity of the belly (Cæsarean operation, section of the pubic symphysis, section of the belly).
 - b. Extravasation external to the proper cavities or receptacles.
 - a. Blood swellings on the heads of new-born children; b. Hæmatocele; c. Collections of blood in joints.
 - 3. *Foreign bodies resulting from the accumulation of unnatural secreted fluids.*
 - a. Lymphatic swellings; b. Dropsy of joints; c. Dropsy of the bursæ mucosæ; d. Water in the head, spina bifida; e. Water in the chest and empyema; f. Dropsy of the pericardium; g. Dropsy of the belly; h. Dropsy of the ovary; i. Hydrocele.
 - 4. *Foreign bodies produced from the concretion of secreted fluids.*
- V. DIVISION.—*Diseases which consist in the degeneration of organic parts, or in the production of new structures.*
- 1. Enlargement of the tongue; 2. Bronchocele; 3. Enlarged clitoris; 4. Warts; 5. Bunions; 6. Horny growths; 7. Bony growths; 8. Fungus of the dura mater; 9. Fatty swellings; 10. Encysted swellings; 11. Cartilaginous bodies in joints; 12. Sarcoma; 13. Medullary fungus; 14. Polypus; 15. Cancer.

VI. DIVISION.—*Loss of organic parts.*

- 1. *Organic replacement of already lost parts*, especially of the face, according to the Tagliacozian and Indian methods.
- 2. *Mechanical replacement*: Application of artificial limbs, and so on.

VII. DIVISION.—*Superfluity of organic parts.*

VIII. DIVISION.—*Display of the elementary management of surgical operations.*

General surgical operations: Bleeding, cupping, application of issues, introduction of setons, amputations, resections, and so on.—(Vol. I. pp. 16, 17.)

We shall not stop to criticise the foregoing classification. With some good features in its favour, it is, nevertheless, open to serious objections. But it has enabled the author to speak either directly or incidentally of almost every surgical disorder; and the inconveniences attending it are, in a great measure, obviated by a copious analytical index. It will be observed that our author nowhere treats of the diseases of the eye or ear. The omission is not an accidental one; but as these diseases have attained to great importance, he is disposed to think that they may be more conveniently spoken of apart, and assigned to special essayists.

Thus far, the introduction. The next, come some hasty notes on the history of surgery; after which, follows a list of about twelve pages of surgical authorities, in which we find enumerated most of the standard works in the several departments of surgical literature.

The first main division of the work opens at page 32, volume first; and as shown by the general arrangement of subjects above cited, it is devoted to the consideration of inflammation in general, to some of the special modifications of inflammation, and to some of its more important local manifestations. The second division opens at page 317, and, as above shown, it embraces a very extensive range of subjects. It occupies the remaining portion of the first volume, and the whole of the second volume of the present edition. The third division commences with the third volume, and occupies 92 pages. The fourth division, treating of foreign bodies, of retained secretions, &c., occupies the next 286 pages. The fifth, devoted to the consideration of hypertrophy, tumours, and other morbid growths, occupies nearly 200 pages. The sixth, on the loss of organic parts, occupies

only 20 pages. The seventh is summed up in two pages; while the eighth, or last, which is devoted to elementary surgical operations, and to the modes of operating for the cure of certain affections, not included in either of the foregoing divisions, occupies 170 pages. The index occupies the remaining 172 pages of this volume.

To enter into a minute examination of this vast amount of materials, or to analyze the 2856 distinct paragraphs, that constitute the body of the work, without speaking of the unnumbered and almost innumerable notes and comments that are appended to these, would carry us far beyond the limits of an ordinary review; nor is it necessary, in a treatise of this sort, that we should be thus minute in the exposition of its contents. It may suffice to refer to a few of the more prominent topics, to furnish a general view of the spirit and temper of the rest, to illustrate the author's, as well as the translator's, manner; and to offer a few passing criticisms on such points as may appear open to objection.

And first, of a form of disease which, to ourselves, appears somewhat new; and to which our author alludes, in connection with the products and results of inflammation, under the head of *lymphatic swellings*.

"BEINL, RUST, and others, consider the nature of the so-called lymph-swelling to be an *extravasation of lymph*, depending on a rupture of the lymph-vessels, or on an unnatural extension of their walls, and they explain the gradual sinking of the powers of the constitution and so on, which occur at the latter period of the disease, and after its bursting, by the continued loss of the lymph.* The observations made on the fluid contained in these swellings (which Rust imagined to be only in the earlier period of the disease, transparent and colourless) have shown that it has more of the properties of pus than of actual lymph, and WALTHER has decidedly proved that the acceptance of the term lymph-swellings in the sense just mentioned is inadmissible; that they must be considered only as abscesses (*lymph-abscesses*) preceded by a stealthy, if not a sensibly perceptible, inflammatory condition, which, however, on account of the too much depressed vital activity, could not produce a plastic consistent pus, but only a secretion of a thin more or less turbid lymphatic fluid. The opinion advanced by BEINL that the strongest and most healthy subjects are commonly more subject to this disease than the weakly, that men more than females, and that, without an external injury, a general diseased condition is incapable of producing a lymph-abscess, is incorrect, and has been disproved by RUST. How frequently, even by writers on lymph-swellings, cold-abscesses and such collections of pus as have formed at distant parts (*congestion-abscess*),† in consequence of carious destruction of the bones of the vertebral column, have been taken for lymph-swellings, and treated as such, I myself have frequently observed."—(Vol. I. pp. 60, 61.)

In commenting upon the foregoing paragraph, our author states, that—

"NASSE‡ describes a case in which a powerful healthy young man, in consequence of an external injury, had a swelling formed on the upper part of the thigh, the contents of which, after opening, perfectly resembled lymph. The pouring out of a clean transparent fluid could not be allayed by any treatment recommended for lymph-swellings, and the patient was exposed to the danger of hectic consumption. The local use of a solution of nitrate of mercury alone brought the lymph-vessels to close. This case (which I myself saw, although only once, in passing through Halle, and convinced myself of the continued out-flowing of clear lymph which could be increased by pressure) proves that a col-

* J. A. SCHMIDT, über den Grund der Todtlichkeit de Lymphgeschwülste; in Abhandlungen der Medic. Chirurg. Jos. Akademie in Wien, vol. ii.

† A. PAULI, Bemerkungen über Congestions abscesse; in RUST's Magazin, vol. vii. p. 383; vol. viii. p. 434.

‡ Archiv für medicinische Erfahrung von HORN, NASSE, und HENKE, vol. i. 1817, p. 377.

lection of lymph in the cellular tissue is possible, as the consequence of an actual tearing of lymph-vessels by external violence, the exudation from which ceases only by obliteration of the torn vessels. Cases of this kind are, however, undoubtedly very rare; to them alone can be applied the term *lymph-swelling* in its proper sense, and therefore the above advanced opinion, '*that the cases commonly spoken of as lymph-swellings are merely modifications of abscesses,*' is rather confirmed than contradicted."—(Vol. i. p. 61.)

To this Mr. South appends the details of a case which occurred to him in 1839, and was entered in the books of St. Thomas's Hospital as a "Collection of synovial fluid within the femoral sheath," but which, to use his own words, "seems to be more nearly allied to the lymph-abscess of this paragraph, of which I was then ignorant, than to a collection of synovia, as I thought it perhaps might be." The case itself is too long to be quoted.

Mortification.—At paragraph 25, our author specifies various circumstances that may give rise to mortification. To these the translator appends several others on the authority of Brodie, Travers, &c.; and cites some observations of his own, of which the following are, perhaps, the most worthy of notice.

"Mortification occasionally happens in simple fracture, from slow but continued effusion, and without wound of the principal artery or arteries of the limb. I have seen this once in a flour-porter, whose leg was broken by being jammed with a cart-wheel; his constitution speedily took the alarm, and, though incisions were made through the skin to relieve the tension, he gradually became worse, and sunk into hectic, in which state his limb was removed; but he died a few hours after. Although from the first no pulsation could be felt in the tibial arteries, yet the examination after death showed them uninjured and undiminished in size.

Mortification I have also seen in one or two instances occurring from splints having been applied previous to the substance of the swelling after fracture, and not proportionally loosened as the swelling increased."—(Vol. i. p. 69.)

The truth of the foregoing remarks we could verify by cases that have fallen under our own eye; and we may further add, that local injuries occasionally give rise to mortification in a way not mentioned either by Chelius or his translator. We have known instances in which an external injury, without leading to an abrasion of integument, or to rupture of any organ, has suddenly and completely arrested the current of circulation through the principal vessel of a limb; the vessel from some cause or other being at once blocked up by the coagulation of the blood within it. The sudden arrest of circulation in this way is uncommon, but may be now and then seen in limbs that have been subjected to great physical violence. A slight blow over the immediate course of an artery, without leading to any rupture of the vessel whatsoever, will occasionally produce it.

Loss of Isochronism in the Arterial Pulsations of Different Vessels in connection with Mortification, &c.—In commenting on arteritis as one of the causes of mortification, Mr. South alludes to the case of a young man labouring under inflammation of the left brachial artery, which presents one feature not frequently noticed, and upon which, though Mr. S. does not dwell upon it, we wish to make a passing observation.

"Aug. 9, A. M. Whilst putting on his waistcoat, he was struck with pain like the prick of a pin, about the middle of the left upper arm, and in the track of the brachial artery, which continued for about an hour, and during that time his arm 'became dull and cold as low as the elbow.' He saw his medical attendant at 10 A. M.; the arm and hand were then cold, and no pulsation could be felt below the arm-pit, at which part the artery was felt beating, but not forcibly, (90 a minute,) and over it great tenderness on pressure. The pulse of the right wrist

was 100, and rather more powerful than usual. The ailing arm was ordered to be put in warm water for a quarter of an hour."—(Vol. i. p. 90.)

So far as we now remember, Abernethy was the first to notice that the pulsations in different vessels of the body, as in the example just given, are occasionally found not to correspond in time or frequency. We have ourselves observed this want of isochronism in three instances; once in the posterior tibial artery, in a case of gangrene of the great toe depending on circumscribed inflammation in the upper part of the femoral artery; once in the vessels at the wrist, in a case of gangrene of a finger connected with inflammation and partial obstruction in the upper part of the brachial artery; and once again in the posterior tibial, some days after a ligature had been applied to the femoral artery. Our observations on these several cases, were carefully made, and in the first and last case, several times repeated, so as to leave on our own mind no doubt of their accuracy.

Amputation for the Arrest of Gangrene.—At paragraph 74 we find Chelius and his translator at issue on the question of amputating in certain cases of gangrene. According to Chelius, if gangrene be produced by external violence, or if the cause of it can be removed in the removal of the gangrenous part, amputation may become necessary, even though the disease be still disposed to spread; and the operation performed under these circumstances, may be the means of preserving the patient's life. Mr. South, on the other hand, would, under no circumstances, resort to amputation while the gangrene is spreading. "For," says he, "the same action will be set up in the stump, and the patient's condition rendered worse by the shock of the operation. Only when the gangrene is proved to have stopped by the line of separation having descended to some depth in the soft parts, is amputation to be entertained."

As a general rule, no doubt, the course advised by Mr. South is the safest; as it is the one most commonly adopted. Nor would Prof. Chelius venture from it rashly. We must allow him to describe his own mode of proceeding.

"In most cases nature, after the gangrene is defined, throws off the gangrenous part, and amputation is not required. Amputation is not applicable in gangrene depending on an internal cause which is still in operation; for, in such case, after the performance of amputation, gangrene again takes place in the wound. But when the gangrene has effected the whole thickness of a limb, and is defined, and the separation of the dead part cannot be expected; or, when produced by external violence, it is proceeding, but the cause of the gangrene can be removed with the gangrenous part, amputation is to be considered as necessary and likely to save life. It is, however, here to be borne in mind that gangrene in the deeper parts commonly makes further progress than the external appearance indicates. The amputation must always be performed in the healthy part."—(Vol. i. p. 111.)

For ourselves, we must agree with Chelius, that, under certain circumstances, amputation should be advised while the gangrene is yet undefined by any line of demarkation; and on turning to M. Velpeau, we find him of the same opinion. In regard to the practice long since established by Pott and Sharp, of amputating only after the gangrene has been definitely checked, M. Velpeau remarks, "This manner of viewing the subject, based as it is upon an accurate observation of facts, should be adopted as a general, but not as an absolute rule." The circumstances under which such a procedure would be proper, imply, of course, local injury so severe as to lead to a fatal issue if the patient be left to the efforts of nature alone; secondly, freedom from internal organic disease that can in any way be

associated with the occurrence of the gangrene, and a manifest cause for the latter that can either be removed with it, or attributed wholly to external influences.

Within the past two years, although strenuously opposed in consultation with surgeons of experience, we have, in two instances, resorted to amputation in cases of traumatic gangrene. In both, the gangrene was the result of overwhelming injury; one from the bursting, the other from the accidental discharge of a cannon. In both, amputation was performed at an interval of some days after the accident, and while the gangrene was in progress. In one, the amputation was performed above the knee, and the patient recovered without an untoward symptom; in the other the arm was removed at the shoulder-joint, the gangrene was arrested by the operation, and the stump took on a healing action, but tetanus supervened and terminated fatally on the twelfth day.

Erysipelas.—The second section of the first division of Chelius's book opens with the consideration of erysipelas, which he treats of under two heads, the true and the false; the one depending on previous vitiation of the general health; the other occurring without any previous constitutional disturbance, and mostly from external irritation. The following is his account of the true erysipelas.

"The *true erysipelas* appears without any local disposition to disease, but with previous general indisposition, which is usually shown by weakness and heaviness of the limbs, listlessness, pain in the region of the stomach, loaded tongue, nasty taste in the mouth, disposition to vomit, more or less active fever, headache, wandering, lethargy, or madness,—as a pale uncircumscribed redness of the skin, fading into yellowish, which spreads unequally, is shaded off towards the edge, disappears on pressure with the finger, but returns when the pressure is removed. After the appearance of the erysipelas the fever generally diminishes or disappears; but every fresh attack is accompanied with fever. The seat of this erysipelas never extends beyond the lymphatic-vascular net overspreading the surface of the cutis. The severity of the disease is as various as is the condition of the part first attacked; it, however, usually subsides under critical discharges of perspiration and urine, and with scaling of the skin; it never runs into suppuration, but only, with weakly constitutions and other concurrent circumstances, into ulceration and gangrene, in consequence of which the destruction of the surface of the body extends to the parts beneath, and there ensues, not a bounded fluctuating abscess, but an open, wide-spreading, putrid, ulcerating surface. If the scaling of the skin, critically following the erysipelas, be disturbed by moist remedies, by cold and so on, dropsical swelling ensues. This erysipelas is very fugitive; it subsides of itself; but more commonly after the external use of moist remedies, of cold, or on mental emotions, and so on, it suddenly quits the surface, and causes inflammation of the brain, chest, or belly, madness, convulsions, paralysis, and so on. The true causes of this erysipelas are biliary irritation, disturbance of the functions of the liver, collections of gastric impurities, use of indigestible food, obstruction in the portal system, and a prevalence of peculiar atmosphere and temperature, in consequence of which it seems to be commonly epidemic, especially towards autumn and during summer."—(Vol. i. pp. 115, 116.)

He further speaks, in the note following the foregoing description, of vesicular and bullar erysipelas, as a variety of the true form.

Mr. South questions the propriety of applying the term erysipelas to the disease described under that name by Chelius. We need not cite his own words. He attempts, after the manner of the dermatologists, to point out the distinction between erysipelas and erythema, as drawn merely from external appearances; and, to us at least, his remarks appear somewhat bookish and hypercritical. The author's account of the disease, however, might have extended, with advantage, to the modification of its symptoms

and effects resulting from the parts affected. We see no special notice of erysipelas of the head and face; of erysipelas as it is reflected along the mucous surfaces, leading, as it occasionally does, to angina; and causing death, as we have more than once observed, by suffocation from œdema of the glottis. The erysipelas of hospitals, and the modes of preventing it; and the association and frequent alternation of erysipelas with peritoneal inflammation and typhus fever; might also have been noticed as occurring without any actual recession of the external efflorescence.

The inflammation of the brain, of which Chelius speaks as resulting from the recession of erysipelas, is perhaps less frequently identified by post-mortem inspection than severe congestion of that viscus—an alarming complication, which may be sometimes instantaneously removed by vesicating the scalp with concentrated aqua ammoniac. Chelius does not include phlegmonous erysipelas in his description of the true, and he cannot apply to it his description of the spurious form of the disease. But to this point we find the translator has alluded in his notes upon the text, as well indeed as the author himself, under the head of metastatic abscess. The course of treatment, internal as well as local, pointed out by Chelius and his commentator, corresponds closely with that commonly laid down by the best of our surgical writers. We need not, therefore, more particularly refer to it. M. Velpeau, on the other hand, has a favourite treatment of his own for this affection, an account of which Dr. Townsend has given us among his notes to the first volume of the *Operative Surgery*.

M. Velpeau, he tells us, has treated one thousand cases, and has taken minutes of four hundred; and yet, up to the present time, *his experience extends only to external remedies*. Among these he has experimented with compression, blistering, nitrate of silver, mercurial ointment, hog's lard, white precipitate ointment, sulphuric acid, hydro-chloric, citric, tartaric, and dilute acetic acid; common salt and water, liquid nitrate of mercury, camphor, and bird-peck punctures, and all to no purpose. "Professor Velpeau had in despair renounced all the above remedies," when "his attention was drawn to the changes effected upon the blood by the preparations of iron." "Impressed with the idea that the inflamed tissues in erysipelas are impregnated with blood and altered fluids, he asked himself the question, if *ferruginous* applications might not have some efficacy upon a disease so superficially situated?" He settled upon a formula of *sulphate of iron*, in solution, nine drachms to forty ounces of water; or, in the form of ointment, eight parts of the salt to thirty of lard. The new remedy was employed in forty cases, with something like encouraging results, which we need not particularize.

"Unless, therefore, says M. Velpeau, numerous and remarkable coincidences have on this occasion deceived me, as so often happens to others, there is good reason to believe in the efficacy of sulphate of iron as a topical application in erysipelas. In no case did the inflamed surface resist this means over twenty-four to forty-eight hours. It is only strange that the spreading (*ambulant*) erysipelas, extinguished at the point of its origin, continued, nevertheless, under this treatment to develop itself, even upon regions already covered and wet (*enduites et imbibées*) with the preparation of iron. Can it be that this remedy, like so many others, may be curative but not preventive? Is it necessary, in order that the inflammation should be modified, that it should be completely established?"

"The researches I am continuing to make will, perhaps, enlighten us on this subject."—(Vol. i. p. 71.)

We shall not attempt to comment upon the foregoing, further than to notice the acknowledgment, that M. Velpeau has no experience of the use

of internal remedies in the treatment of erysipelas; a singular announcement, certainly, that he should allow a thousand cases of this disease to pass through his hands without even attempting to employ the means upon which most other surgeons place their principal reliance. In justice to M. V., however, we must remark, that the foregoing facts constitute no portion of his operative surgery, and may have been incorporated with his book without due consideration.

Hemorrhage Incidental to Operations on the Tonsils.—Chelius, in the third section of his first division, among other forms of local inflammation, treats of tonsillitis, chronic enlargement, abscess, and gangrene of the tonsils. We shall not follow him in his account of these. But we cannot pass over Mr. South's Notes, on the dangers incidental to puncturing, scarifying and excising the tonsils. They may serve as a caution to many who are yet anxious for the first opportunity of trying their shaving machines upon these organs, too often the mark for beginners. First, of *scarifications*:

"In scarifying the tonsils, there is danger of wounding the carotid artery, or some branch, which will continue bleeding and cause serious alarm. Watson mentions in his Lectures a case of fatal bleeding from wound of the internal carotid artery:—'Only a few years ago, in Ireland, it was struck by a surgeon while scarifying a gentleman's tonsil, and he died in three minutes.' In another case, which occurred under Watson's own care in 1838, in which the tonsil glands, during convalescence from scarlet fever, having become so enlarged as to impede breathing considerably, 'the surgeon in attendance punctured the tonsils. The next day a good deal of hemorrhage took place; and this recurred several times, to a considerable and even alarming amount. When the clots that formed were wiped away with a sponge, the blood could be seen welling out in a little stream, with a pulsating motion, from a small incision in the left tonsil. The hemorrhage was ultimately, after much trouble and anxiety, arrested by applying a pencil of lunar caustic freely within the bleeding orifice.'" (p. 792.)—(Vol. i. p. 160.)

Second, of *Puncture*:

"PORTAL (*Cours d'Anatomic Médicale*, vol. v.) mentions a case in which, in performing this operation with a pharyngotome, "a dexterous surgeon of Montpellier had the misfortune to open a large artery, and see the patient perish of so severe a hemorrhage that nothing could arrest it." (p. 509.) Allan Burns also says:—"In this country, (Scotland,) I have been informed that a surgeon, in opening a tonsillitic abscess, actually did plunge the knife into the carotid. I need hardly add that he lost his patient before he could suppress the bleeding." (p. 256.) My late colleague Tyrrell was accustomed to mention, in his Surgical Lectures, a case to which he was fetched by a practitioner, who, having punctured an abscess in the tonsil gland, the wound was immediately followed by severe bleeding, and the patient was dead before he could reach the house. Sir Benjamin Brodie informs me that he is cognizant of two cases in which death from bleeding ensued after the puncture of tonsillar abscess.

"From the puncture of an immature tonsillar abscess, alarming hemorrhage may occur, without, however, destroying life; for the following instance of which I am indebted to my friend Lawrence:—

CASE.—"In a gentleman labouring under *cynanche tonsillar*, a premature puncture was made, with the expectation of evacuating matter. A most profuse bleeding ensued, which stopped from the occurrence of fainting, and did not recur. It, however, not only seriously alarmed the patient and those around him, but also the gentleman who made the puncture. A long time elapsed before the patient recovered his strength.'"—(Vol. i. p. 162.)

Third, of Excision.—The large vessels in the neighbourhood of the tonsil are not often wounded in this operation, and yet it occasionally gives rise to fearful bleeding. We are aware of one instance, in which a clergyman

nearly bled to death after the removal of a tonsil by means of one of the fashionable tonsil cutters. "Of wound of the carotid artery in removing the tonsil gland," says Mr. South, "I have not met with, nor heard of a single instance."

"But their removal is sometimes attended with very fearful hemorrhage. My friend Callaway informs me, that he has 'seen sometimes considerable, and, in one case where he had removed the tonsil by the knife, alarming hemorrhage in a boy of seven years of age, which required stimuli, &c., to recover him from the fainting which followed.' I have to thank my friend Shaw for the following

"Case.—A man aged forty years was deaf in the left ear, and the tonsil on that side being enlarged, it was excised with the guillotine on *Saturday*. No bleeding of consequence followed, the gland being hard and light-coloured, as if of old standing. On *Monday* he complained of sore throat, and the incised surface appeared as if a superficial slough were about to form. On the afternoon of *Tuesday* bleeding commenced in the lower part of the cut surface where ulceration had taken place adjoining the slough. An oozing of blood, varying in quantity, continued, in spite of repeated attempts to check it with styptics, till the afternoon of *Thursday*, when he was so much exhausted that the carotid artery was tied. The bleeding now ceased completely; the wound rapidly closed, and the ligature came away on the twelfth day; in a short time after he was discharged cured."—(Vol. i. p. 166.)

Time for Opening Abscess of the Breast.—Inflammation, leading to abscess of the female breast, according to Chelius, may occur either during nursing or after that period; and may be situated "either in the *skin and cellular tissue alone or in the parenchyma of the gland itself*." To which he might have added, that large abscesses are occasionally met with in the breasts of young women before marriage; and may be situated as above stated, or lie between the gland and the surface of the pectoralis major muscle beneath it. In the treatment of such abscesses we find Chelius and Mr. South again at issue. According to Chelius, "If the inflammation pass into suppuration, the softening poultices must be continued, cicuta and mercurial plaster applied, and the *opening of the abscess left to nature*." This latter part of his advice is rather heterodox among the surgical authors of the present age at least; and, on this point, we have no hesitation in siding with Mr. South, who states that "the abscess is *always to be punctured freely as soon as fluctuation can be distinctly felt*, and whilst the walls of the abscess are still thick." His reasons for this course are numerous and satisfactory; but in these we need not follow him.

Gonorrhœa.—This disease Chelius speaks of in his section on Local Inflammations; and here we meet with one of the striking inconveniences of his artificial arrangement of subjects. He is forced to separate gonorrhœa proper from most of its concomitants and consequences. Syphilis, or rather syphilitic ulcers, are spoken of in another division of the book; disease of the testicles depending on the one or the other of these, out of this connection; and strictures and their consequences are separated from each other, as well as from the primary diseases that give rise to them. As to the *nature* of gonorrhœa, and its connection with the venereal disease, he lays down the following distinctions:

"1. Gonorrhœa arising without infection from external injury, for instance, hard riding, blows upon the urethra, onanism, too frequent connection, introduction of foreign bodies into the urethra and so on; or from internal disturbance, as herpetic, or gouty humours, repelled eruptions, suppressed secretions and so on.

"2. Gonorrhœa depending on peculiar contagious matter, the influence of which, however, does not spread beyond the urethra.

"3. Gonorrhœa which has a venereal origin, rather as a consequence of general

venereal disease, or as a primary syphilitic affection with or without ulceration. This kind of gonorrhœa may pass into general venereal disease."—(Vol. i. p. 182.)

Our author enters at some length into the history of this affection; and Mr. South's additions on this point are also quite extensive. We shall notice only one of his remarks. "In deciding upon the cure of gleet," says he, "let it never be forgotten that so long as only six or eight drops of the discharge are observed during the day, or even if the lips of the urethra be merely moist with it on rising in the morning, the cure is not affected, and the person ought not to marry, or he will infect his wife."

Syphilitic Inflammation of the Testicle.—In enumerating the several causes that give rise to inflammation of the testicle, Chelius admits, in common with most others who have of late written on the venereal diseases, that "it may be a symptom of general syphilis." Mr. South, after referring to Hunter and Astley Cooper as siding with Chelius in his opinion, as he might have done to several others who have made the various forms of syphilis their special study, states, at length, that "notwithstanding these high authorities, I must confess I have great doubt as to the swelling of the testicle depending on a syphilitic cause." As to ourselves we have no such doubts whatever. But we have serious doubts in admitting as proved, a proposition assumed by Mr. South, on the strength of a case which is too long for us to quote, viz., the metastasis of gonorrhœa, and of gonorrhœal inflammation of the testicle to the brain. See his case, vol. i. page 206.

Inflammation of the Joints.—The concluding chapter of the first division of the work of Chelius, occupying about eighty-four pages, treats of inflammation of the joints; and, as here enriched by Mr. South's very copious notes, it constitutes one of the most valuable and useful chapters in the whole work. It is sub-divided into two parts; the first treating of inflammation of the several tissues entering into the structure of joints in general, as of the ligaments, synovial membrane, cartilages, and bones; and the second treating of the different forms of inflammation in particular joints. Mr. South has entered very fully into the healthy and morbid anatomy of the synovial membranes and articular cartilages, giving all the recent investigations by the microscope and otherwise, with running notes on the views and opinions of the best practical writers on the joints. Without attempting to analyze the contents of this chapter, we must commend it to the careful examination of our readers. We must make room, however, for a part of what is said of

Inflammation external to the capsular ligament of joints,—a form of disease frequently mistaken and treated for a more serious affection, even to the sacrifice of the limb. We have ourselves met with several cases in which we have confounded, for a time, disease in the cellular membrane about the joints, with inflammation beneath the capsular ligament; and have known extensive superficial abscesses mistaken for ulceration and exposure of the articular surfaces. We quote from Mr. South:

"The disease of the cellular membrane appears in two forms: 'the one in which a single, or more spots may have been the seat of the inflammation, having its origin from some injury which the part may have received, and pursuing a chronic course to the formation of small sacs of pus in those situations, which, perhaps, ulcerate through the synovial membrane; the second case is that in which the whole of the cellular membrane, surrounding the articulation, becomes inflamed, and ultimately envelops the joint in one large abscess. The first case is the more common of the two; the latter the effect of a sudden attack of inflammation, and more active in its course.'

"In 1839, I amputated the knee of a man, aged twenty-seven years, for disease of the former kind, which had resulted from slipping down stairs and bending his knee under him sixteen months before. The examination of the joint presented a large abscess on the inner condyle of the thigh-bone, which it had flattened and somewhat roughened without laying it bare; another long abscess extending from the knee upwards behind the hamstring, and downward, about three inches, below the head of the fibula; the skin over both abscesses very thin, but neither communicating with the other, nor with an open wound upon the outer condyle, the remains of an abscess which had burst five weeks before the operation. Behind the knee, in the popliteal space, was a fourth abscess, large and deep. Neither of the four had any communication with the cavity of the knee-joint, which did not contain any pus, but the synovial membrane, around the knee-cap, was thickened, soft, and jelly-like.

"Earlier in the same year I saw a case of the latter kind in a woman who, about a month previous, had received a blow on the inside of the knee; a fortnight after, she was attacked with severe shivering, which was followed by much swelling and puffiness about the joint, especially on the inside. A puncture was made just below the knee-cap, and twelve ounces of good pus discharged, but it was requisite to make a second opening two days after, and eight ounces more passed out. She did well. In a second case, where I had been attending a lady for many months, with what seemed to me chronic inflammation of the synovial membrane, with large effusion in the cavity of the joint; suppuration occurred some time after, whilst she was in Barbadoes; the abscess was opened, and she did well. Both these cases I, at the time, considered connected with the joint; but the result proved that such could not have been the case."—(Vol. i. pp. 234, 235.)

Wounds.—The second main division of Chelius' work commences with the consideration of wounds. These are spoken of under—1. Wounds in general; 2. Wounds in Particular Parts. This section is one of great extent, occupying about 226 pages; but we find, though the whole subject is well handled by the author and annotator, only a very few points calling for any special attention. In this section we meet with almost the only evidences we have met with in the whole work, of slight inattention on the part of the translator, in referring to authorities. Thus, he speaks of Belloq's well known instrument for plugging the posterior nares, as "a clever French instrument, whose inventor I do not know, which I brought many years since from Paris;" and he has allowed the name of his own countryman, Bromseild, the inventor of the tenaculum, to stand Brownfield, as it may have, perchance, been erroneously misspelt by the author; but which is not so misspelt in his fourth edition, the only one to which we have access. In mentioning these oversights, we may also allude to another, vol. iii. pp. 100, 101, common to both author and translator, in coupling the names of Verduc and Guattani, as if the two belonged to one individual. We may notice in connection with wounds: first, some of the author's observations on the

Modes of Arresting Hemorrhage.—"The means by which bleeding may be staunched," says he, "are the *compression*, *ligature*, and *torsion* of arteries; *styptic astringent* remedies; and *cauterization*." He might have added to these, *elevated position* of the part from which the hemorrhage is proceeding, *nauseating remedies* internally, *derivative* and *revulsive applications* to parts remote from the seat of hemorrhage, and perhaps some one or two other expedients that are now and then of service.

Compression, he speaks of, at some length, under the heads of mediate and immediate: among the first of these, he speaks of pressing the vessel on the cardiac side of the injury, either with the fingers, the tourniquet, special compresses, graduated compresses, and slightly drawn bandages.

Among the second, he speaks of placing rolls of charpie, or pieces of agarie, sprinkled or moistened with styptics, over the mouth of the bleeding vessel, and securing these tightly with a suitable bandage. It will be seen that he here makes no mention of "compressed sponge," an article which some of our older surgeons were fond of recommending. Chelius very naturally leaves to the good sense of his readers and pupils to determine for themselves what sort of material their graduated compresses should be made of; and, in so doing, he has left open to Dr. Mott an avenue to some little notoriety in his "somewhat novel" discovery, that it may be made of compressed sponge. We must allow Dr. Townsend to explain:

"Dr. Mott believes he has seen an instance lately, in which the subclavian artery, without the scaleni muscles, may have been wounded during an operation for the removal of a small tumour above the clavicle. The wound was probably of the nature of a *small flap* on its superior surface, between the first rib and the scalenus anticus muscle. In fact, the artery was perhaps nicked in this part, as a terrific hemorrhage ensued. In this dilemma, Dr. Mott, being sent for, adopted instantly a treatment somewhat novel, but which proved eminently successful, and went to corroborate his suggestion that it was the subclavian which was wounded.

"The practice consisted in the immediate application of a *small portion* of compressed sponge upon the bleeding part, which was situated at nearly the depth of the forefinger. This was followed successively by other small portions of sponge, until the wound was entirely and *compactly* filled up. An entire flat piece of sponge, just the size of the external opening of the wound, was now nicely adjusted over the ten or dozen smaller pieces which had been previously impacted. Finally, a larger flat piece of sponge, of still greater dimensions than the last, was now used to cover the whole mass, and to extend some distance on every side beyond the margin of the wound.

"Pressure with the hand was then made, by a succession of assistants, unremittingly for three days and three nights. After this, the pressure was confided to adhesive straps and a bandage, until suppuration made it proper to commence the removal of the sponges. This was done from day to day, with the utmost care, and by taking away piece after piece, without the least violence, until the last was separated, which was finally effected at the expiration of a week from the time that this surgeon commenced with their removal. The wound then granulated, and healed beautifully."—(Vol. ii. pp. 30, 31.)

The statements above set forth, if nothing further had been known either in regard to the case in which the sponge was employed, or in regard to sponge itself, might redound, in some measure, to Dr. Mott's credit for invention; but, as the facts have been elsewhere set forth, (see the *New York Journal of Medicine*, for March, 1846, pp. 242, 244,) it appears that there was not the slightest evidence that the subclavian artery had been injured; that the compress never for an instant checked the artery at the wrist; that the wound never cicatrized; and the case terminated fatally, by erysipelas. The colour given to the case by Dr. Mott, has been the means of inflicting serious injury on the fair fame of a most worthy surgeon, not unknown to the profession at large, and who had good reason to look for better treatment.

Ligature.—Chelius, at paragraph 291, describes his mode of securing a divided artery, as follows:

"In tying arteries the surgeon must endeavour, as much as possible, to include none of the neighbouring parts in the ligature, and still not completely to isolate the artery. He seizes the mouth of the wounded vessel with the forceps, by laying the points of the instrument on each side of it, and gently drawing it forwards. An assistant carries a round, not very thick, but sufficiently strong, waxed silk ligature, about the vessel, ties a single knot, and, whilst he holds the ends of

the ligature with both hands, he draws the knot somewhat together, presses with both his fingers upon the artery, draws it sufficiently tight, and then makes a second simple knot."—(Vol. i. p. 336.)

But, says Mr. South:

"I do not quite agree with Chelius as to the incomplete isolation of the artery before applying the ligature; but I do fully participate in his preference of the forceps to any other instrument for drawing out arteries. I always use two pair of forceps for taking up a large vessel; drawing it out with one pair, in the way he recommends, and then with the other clearing it entirely of *all* its surrounding connections. This was the younger Cline's practice, and I think very good, as it certainly excludes the accompanying nerve, which often excites severe pain and irritation. I am not, however, sure that the complete separation from the neighbouring parts at all hastens the throwing off the ligature.

"The tenaculum is the instrument more generally employed in this country for taking up arteries; but I think it objectionable, as it commonly lifts up a large mass of soft parts which ought not to be included in the ligature."—(Vol. i. p. 337.)

It is rather singular that Mr. South should urge as an objection against the tenaculum, the very objection that its inventor, Bromfield, (see his *Chirurgical Observations*, vol. i. p. 160,) long ago urged against the needle, and other instruments, which it was intended to supersede. We cannot appreciate as of any value Mr. South's objections to the use of the tenaculum. We have usually found it more convenient than the forceps as an instrument for seizing the artery, for holding it securely and separate from the surrounding soft parts, for guarding these soft parts against pressure and confusion, as well as for preventing bungling manœuvres in placing the ligature upon the vessel. We agree, however, with both Chelius and his commentator, as well as with most other sensible surgeons of the present day, in preferring the common round ligature of silk thread to all other contrivances that have been recommended, and that are still occasionally brought to our notice, under the name of animal ligatures—as if silk thread were not itself an animal substance, and as if dead animal matter introduced within a wound were not as much a foreign body, and as liable to excite irritation and prevent the union of the wound, as so much simple vegetable or mineral substance. And as to the speedy liquefaction of such ligatures, we hold that this is among the serious objections that should be urged against them, and it more than counterbalances the usually trifling inconvenience of having the end of a fine silk ligature lying on the lips of a wound.

The following suggestions for removing the ligature where it has been too long retained, are worthy of passing notice. They are from Mr. South's notes.

"Some surgeons, when a ligature has been long retained, pass a probe by its side, as low as it will descend, and then twist thread and probe round until both come away together. But I prefer the younger Cline's practice of putting a thin whalebone spring upon the thread, the constant pull of which upon the knot makes it press against the obstacle which prevents its coming away, and produces ulceration, which sets it free often in the course of the day; but if not, the thread must be daily twisted on the spring, so as to keep it tight till it comes away. Another method is to roll the thread, close up to the wound, on a bit of bougie or wood, and prevent its uncoiling by fixing it with adhesive plaster, but the former plan is preferable."—(Vol. i. pp. 340, 341.)

The following note in regard to securing vessels at the bottom of deep wounds, should not be overlooked.

"Another point in reference to taking up wounded arteries is also not to be

overlooked, namely, that if that side of the limb at which the wounding instrument have entered be at a greater distance from the artery than the sound side, it is preferable to cut down upon the vessel at the uninjured part. I recollect some years ago seeing this practice adopted with great success by my friend Travers. The patient had received a scythe wound on the outside of the leg, and the scythe passing across had wounded the posterior tibial artery, but did not penetrate the skin on the inside of the leg. Attempts were made to get hold of the vessel by enlarging the wound, but its depth was so great that they were fruitless. An incision was then made along the inner edge of the shin-bone, and the artery without difficulty secured."—(Vol. i. p. 338.)

Dissection wounds.—Passing over, for want of room, many other important points in the section on wounds, we next turn to a note of Mr. South's, in which he appears disposed to deny the poisonous character of dissection wounds.

"The question of absorption of poisonous matter into wounds, received in dissection, has been much disputed. But I must confess, that, after nearly twenty years' constant employment in the dissecting-room, I almost entirely agree with the opinions held by Lawrence on this subject. 'It seems to be very doubtful,' says he, 'in those cases, whether anything actually venomous or virulent is introduced, or whether the results of these injuries must be said to arise from such wounds, considered merely as mechanical wounds. If these be poisonous wounds, the poison certainly follows other laws than those we observe in cases in which we are more intimately acquainted with the poison. * * * If they arise from a poison, then it is one of a very uncertain, and, almost, you might say, capricious kind.'"—(Vol. i. p. 385.)

"The most certainly dangerous punctures, as far as my observation goes, are those which have happened in the examination of cases of peritonitis, either of the common or puerperal form; which certainly would lead to the presumption that, in such instances, there is an absorption of poison. But, on the other hand, I am sure that almost if not quite as severe symptoms have occurred when the wound has been received in examining a body recently dead and quite fresh. With regard to putrid subjects, or those just beginning to be so, my experience proves that wounds from them are almost invariably the least formidable kind. How these facts are to be explained other than by the assumption of a peculiarity in the constitution at the time of receiving the wound, I do not presume to say; but certainly, as regards the affections from peritoneal disease, there does not appear to be a very strong presumption of poisonous matter having been absorbed."—(Vol. i. p. 386.)

Chelius, in his remarks on dissection wounds, notices their capricious character; but he is not so decidedly disposed to deny that they may occasionally give admission to a poisonous principle. After having paid some attention to this subject, we have no doubt that, in some instances, dissection wounds actually do give admission to a morbid principle; whilst in others the disease arising from them is simply the result of local irritation. In some instances we find them exciting violent inflammation which is mostly confined to the neighbourhood of the wound; in others a less severe local irritation will lead to inflammation of the absorbent vessels as well as to sympathetic disturbance of the system; in others again, with scarcely any local disturbance, with no inflammation of the absorbents, and even without any actual abrasion of the skin, there will suddenly ensue, after an interval of a day or two, axillary swellings, rigors, irritability of the stomach, and, at length, a general febrile movement of the system, of a low nervous character, which may continue for weeks, and even result in death. Now, that cases of the latter sort are to be accounted for on the supposition that there is no morbid influence conveyed from the cadaver, we are not willing to allow; and one reason we would assign for the conveyance of

such an influence, is the fact admitted by Mr. South himself, and which he is unable to account for, viz: that severe accidents following dissection wounds, are more apt to occur after examining subjects recently dead, than after examining those that are already far advanced in putrefaction. They are more frequent after post-mortem examinations, than after cuts received in the dissecting room.

Some years ago having had occasion, while in perfect health, to examine the body of an old lady who had died of an ovarian tumour, we had our hands for some time immersed in the jelly-like contents of the sac, and might have come in contact with some chloride of lime that was placed about the body; but whether such was the fact or not, we are certain that we received no puncture or incision of any sort during the examination. On the following day we observed about our hands a few minute vesications, which were cauterized, and gave no further trouble. On the second evening after the examination these vesications had not ceased to appear, and one of them was observed on one of the fingers of the right hand just before retiring to bed. This one was not touched with caustic. About the middle of the night, without any previous warning, we were awakened in a violent rigor, with agonizing pain and a hard lump in the axilla of the right arm. At this time the finger was giving no uneasiness, and there was no redness or soreness in the course of the absorbents. The rigor continued for the rest of the night, followed by vomiting and great gastric irritability during most of the next day. There ensued a protracted fever of a nervous type which continued about three weeks; and during more than half of this period the swelling in the axilla was not among the least troublesome of the symptoms. It may appear rather remarkable; but, we have rarely made a post-mortem examination since recovering from this attack, without observing the same sort of minute vesications about our fingers; and having invariably touched them with caustic as soon as they appeared, we have never experienced any further ill effects from them.

Wounds of the Head.—In the second subdivision of the section on wounds, while treating of wounds of the head, we find Chelius and Mr. South again at issue, in regard to the escape of extravasated blood, and the depth to which we may be allowed to proceed in search of it.

"If the extravasation be beneath the skull," observes the former, (paragraph 419), "it flows out after trepanning." "This is a very incorrect statement," says Mr. South. "The blood rarely if ever flows out after the trepan has been applied." According to our own recollection on this point, we would say that in this dispute, as in many others, there is reason on both sides. It is not so very rare to see the escape of blood after the application of the trephine; and yet as a general remark, Mr. South's words are correct when he states, in regard to the extravasated blood beneath the skull, that, "It is almost invariably found coagulated; and, therefore, though a little bloody serum may escape, the bulk of the blood still remains upon the dura mater, and always requires removal by careful scraping with an eye probe, or with the edge of a spatula where it can be easily reached."

Again: "If the *dura mater* be stretched, violet-coloured, fluctuating," says Chelius, "it may be divided by a suitable cross-cut. If the extravasation be beneath the *pia mater* it also must be cut into." "But," says Mr. South, "there has been great difference of opinion amongst the surgeons of this country in regard to the propriety of puncturing the membranes of the brain, when extravasated blood is presumed to be between

the *dura mater* and the brain; and I must confess I am rather disposed to agree * * * with those who think little advantage likely to result from cutting through the *dura mater*." He goes very fully into an examination of authorities on this point; but, in these we cannot follow him. His position we believe, on this point, is well taken. The practice recommended by Chelius may in some instances be justified; but his advice should not be followed rashly. The bulging up of the *dura mater* into the opening made by the instrument, is no proof whatever of extravasation beneath it; nor is the apparent feeling of fluctuation. Even the dark colour of the membrane may be owing to other causes. We have seen surgeons of great experience commit errors in regard to these appearances, and discover their mistake only after having freely divided the protruding *dura mater*.

The Condition of the Brain induced by Concussion is a question of some interest, and is spoken of by Chelius as follows:

"The changes produced on the brain by concussion are various, and may be divided into primary and consecutive. They consist either in a *sudden depression of the activity of the brain and nerves*, in which after death no trace of any mechanical injury, frequently only a sinking together of the brain, which does not completely fill the cavity of the skull, is found; or in *tearing of the vessels*, or even of *the brain itself*, and *inflammatory congestion*. In concussion the vessels of the brain are always more or less debilitated, so that when the first symptoms of concussion have passed by, they cannot withstand the subsequent influx of the blood, and in this way gorging with blood and its effusion through the relaxed walls of the vessels takes place. In concussion of the brain there are, therefore, various conditions to be remembered, namely, *torpor* and *weakness of the nervous system*, *irritation and inflammation*, *extravasation*, and not unfrequently *concurrent affection of the liver*."—(Vol. i. p. 451.)

As to the affections of the liver sometimes co-existing with injury of the brain, it is questionable whether or not the injury of the brain has had any direct agency in their production. The co-existence of abscess of the liver with injury of the brain was, if we remember rightly, first distinctly pointed out by Ambrose Paré; and many other surgical and pathological observers have, since his day, referred to it. The coincidence, however, is not a common one; and when it does occur, the disease in the liver, we are disposed to believe, may in most, if not all cases, be attributed either to local injury, to the secondary effects of phlebitis, or to the effects of constitutional disturbance upon an organ already predisposed to diseased action.

We cannot stop to notice any other of the local injuries spoken of in this important section. The author, in connection with wounds, takes up some of their constitutional effects, and these, too, we must pass unnoticed. We would only observe, that in connection with wounds about the neck and throat, we find no notice of an accident that should here have been alluded to, we mean the admission of air into the veins—a subject which has of late been very thoroughly investigated by the surgeons of Great Britain, as well as by others, with whose publications and labours Mr. South can scarcely be unacquainted.

Fractures.—In this section of the work we have noticed but few points of difference between the surgery of Germany and that of our own country; and in the four that we have noticed, we find that Mr. South has, in his notes, anticipated most, if not all, that should be said upon them. We cannot refuse a place to the sensible remarks of Mr. S. on the impropriety of extensive division of integument, and of the removal of sections of bone by the saw, as often and needlessly resorted to in cases of compound fracture.

"Enlargement of the wound in compound fracture should not be lightly undertaken, and as far as my experience goes, is not often requisite; for if the surgeon have a little patience and dexterity, a protruding fracture may often be coaxed, if the expression may be permitted, to recede into its place, when force is quite unavailing. Should it, however, be necessary to enlarge the wound, the operator should carefully select such part of it as with least division will permit the return of the bone.

"Sawing off the protruding portion of the fracture is still less necessary than enlargement of the wound, and should never be resorted to but on the most urgent necessity. I believe that in but exceedingly few instances its needfulness depends rather upon the incapable conduct of the medical attendant than on the nature of the accident itself.

"Loose pieces of bone, if not of large size, but lying between the main parts of the fracture and near the surface, especially if the wound be large and there be much bruising, are best removed at once, as they rarely unite, and commonly keep up irritation till they are thrown off: not unfrequently also they prevent the union of the main pieces, and render amputation necessary.

"During the progress of compound fractures, abscesses often occur, sometimes near to, sometimes more distant from, the wound. If after a few days they do not make their way to the wound, and empty themselves by it, or if after having so done, they burrow beneath the skin, it is best to puncture them, to favour the ready escape of the matter; but large wounds for this purpose are neither necessary nor advisable."—(Vol. i. pp. 559, 560.)

Mr. South is an opponent to all complex and fanciful apparatus for the management of fractures, as in other departments of surgery. In this he is a man after our own heart.

"I must confess that I consider the more simple are the means employed for treating either simple or compound fracture the better. The starched and gummed bandages have rendered this part of surgical practice as simple as it is efficient, but if the surgeon prefer wooden splints, he can always readily furnish himself, with or without the aid of a carpenter, with pieces of deal about three inches wide and the sixth of an inch thick, which he can cut to the requisite length for the limb on which the splints are to be applied. These, together with pads and bandages, are sufficient for the treatment of almost every fracture, either simple or compound; for the surgeon will do well to remember that the well-doing of the case depends rather on the way in which he adjusts the apparatus of whatever kind it may be, than on the gimcrackery with which some mechanical surgeons are fond of furnishing it."—(Vol. i. p. 562.)

The second volume of Chelius's *Surgery* opens with a section, which, under the heading of "Old Solutions of Continuity," includes a vast amount of heterogeneous topics, and includes some disorders such as hare-lip and cleft palate, which are arrested developments, and as such, not entitled to a place here. The first topic that strikes our attention is one that very naturally comes in after fractures, viz:

Unnatural Joints.—When the two ends of a broken bone not firmly united by cartilage, have received a sort of cartilaginous investment; or when, from any cause, they remain ununited for a period of six months or more, and the ends of the bone are still movable, our author would consider the case one of false joint. Unnatural joints of this sort "have been noticed in almost every bone, but they are most frequent in the upper arm." There is one form of unnatural joint for which he leaves no room in his descriptions, viz: that which is congenital, and which can scarcely be attributable to fracture. Among the various reasons which our author assigns for accidental non-union after fracture, we see no allusion to one cause which we are disposed to believe not the least common of the causes that give rise to it. We have reference to the early and prolonged use of tight bandaging,

which, leading to atrophy of the limb, and interrupting the deposit of callus, is apt to arrest the reparative process, especially in the upper arm, where pressure would naturally have the greatest influence in this way, and where, in fact, the accident is most frequent. The usual modes of treating false joints are all mentioned in their turn, and we need not here enumerate them. But the procedure instituted by Dr. J. K. Rodgers of New York, and which has hitherto been mostly confined to that city,—excision of the ends of the bone and subsequently keeping the parts in coaptation by means of a wire suture—has found no place either in the text or in the notes of the commentator.

Dislocations.—There is a form of spontaneous dislocation that occurs mostly in growing children, as the result of arrested growth of the muscles, &c., about a joint; and another which may occur from atrophy of these muscles, &c., in adults; and which sometimes depends on chronic synovitis, or disease of the articular cartilages, more especially in the shoulder-joint. Of these accidents we see no notice in Chelius's account of dislocations, and these are the only admissions we see, to be supplied under this head; unless we should also wish to have admitted a notice of some recent instruments for the readjustment of bones; and which, we suppose, Mr. South, who must have been acquainted with them, could class among his "gimerackeries."

The following passage on the reduction of a dislocation at the hip, is worthy of recollection.

"In the dislocation downwards Astley Cooper used to say, in his Lectures, that it might be reduced by interposing the bedpost between the thighs close up to the *pelvis*, and then making extension.

"Morgan and Cock, of Guy's Hospital, have reduced several dislocations of the hip-joint by placing the foot between the thighs, so that it presses against the upper part of the dislocated bone, and thrusts it away from the *pelvis*, extension and rotation of the limb being at the same time made by assistants. The principle of the operation is precisely similar to that in reducing a dislocated shoulder by putting the heel in the arm-pit. This practice was first introduced about ten years since by Morgan, (*Guy's Hosp. Rep.*, vol. i. p. 79,) and by it he has replaced a dislocation upon the *pubes*, one on the oval hole, and one upon the back of the hip-bone without difficulty, which he principally attributes to diverting the patient's attention from the operator's efforts by unexpectedly pricking or pinching. Cock has reduced one dislocation on the *pubes*, and two on the back of the hip-bone, by the foot between the thighs; but he informs me that the greater number of the persons so treated were weak or elderly. Till making inquiry, I was unaware of so many cases having been thus managed; I do not know that the practice has been elsewhere adopted, but I shall certainly try it, at the first opportunity, as it saves all the trouble and inconvenience of *pelvis*-straps and pulleys."—(Vol. ii. p. 242.)

Wry Neck.—We must next pass over nearly two hundred pages of important matter, among which are ulcers in all their varied forms, syphilis, necrosis, fistula, hernia, until we arrive at paragraph 1334, where we find our author speaking of the causes that may give rise to wry neck.

"The most frequent cause of wry neck is unnatural muscular activity. It is either congenital and depends on irregular position of the child in the womb; or it arises from violence during delivery, which affects the *m. sterno-mastoideus*; or it comes on later from the habit of always hanging the head to one side, especially in children, if they be constantly carried on one arm; if, on account of the continuance of any pain in the neck it be inclined to one side, by spasm and organic change in the structure of the *m. sterno-mastoideus*. If the cause lie in the unnatural activity of this muscle, it is always found, on the side to which the head is drawn, stretched like a cord, hard and unyielding; in attempting to bring

the head into its proper position, the muscle becomes more tense and prevents it. It is really only the *m. sterno-mastoideus* which is primarily shortened, and most commonly on the right side; rarely, also, the *m. cleido-mastoideus* and *cucullus*; the *m. platysma myoides*, may also be shortened. Frequently is the *m. sterno-mastoideus* of one side palsied, and the natural contraction of that of the other draws down the head. In this case the dissimilarity of the two sides of the face and the distortion of the features are not so great as in wry neck from unnatural muscular contraction; the head is drawn only towards the shoulder, but the chin is not raised. That the cause of the evil is in the bones is known, when no change can be observed in the muscles, and the general symptoms of softening of bone be present. The head is also usually more movable than in the former cases.—(Vol. ii. p. 422.)

In a note appended to the foregoing, he stated that he has seen wry neck induced by the application of a blister behind the ear. We might further observe, that it frequently is associated with, or follows inflammation of the tonsils, and other parts about the throat; the irritation extending from these parts downwards in the course of the deep fascia, and giving rise to the muscular contraction. Thus induced, it will sometimes subside in a few weeks after the disease in the throat has yielded; but in other cases, it does not so readily disappear.

Lateral Curvature of the Spine.—Mr. South has a sensible note upon what he considers a very frequent cause of this form of distortion, which at the risk of being prolix, we must refer to.

“The most common cause of a high shoulder, is to be found in the abominable practice of undressing girl’s necks, as low as the hanging on of their clothes will permit. Instead of the shoulder straps of their dress being as they should be; fairly above the root of the acromial processes, they often, indeed most commonly, either only skirt the extreme end of those processes, and rest on the rounded upper part of the deltoid muscles, or are actually far down on the arms; in consequence of which, the dress having little or no suspension on the shoulders, is constantly dropping, and the girl to save her clothes dropping down, or at least to keep them in place, is continually hitching up the shoulder from which the shoulder-strap most easily slips, and thus the elevating muscles becoming stronger on that side, pull the shoulder permanently up, and produce a very ugly appearance. But the mischief does not stop here, for though there be really no disease in the spine, yet this constant hitching up of the shoulder causes the head and neck to be thrown to the other side, whilst the chest is drawn out to the same side, and thus a lateral curvature of the spine is produced, and a girl’s figure spoiled, for the simple purpose of uncovering her neck and shoulders as far as possible, which, as well for decency, as for the preservation of the child’s health, ought to be covered. Many parents have been thus the real cause of their daughters’ distortion, if not of more serious consequences; and therefore, in growing girls who have the least disposition to slip their shoulder out of their dress, most especial care should be taken to prevent the possibility of keeping up this habit, by having the dress made so high, that it cannot slip down, and then the sensation of its slipping being lost, the child no longer continues to hitch up her shoulder, and by a little attention to her proper carriage, the mischief, if not of long standing, may be got rid of.—(Vol. ii. pp. 428, 429.)

Aneurism.—We notice this portion of Chelius’s work, mainly for the purpose of correcting two misstatements which we have met with in other recent publications of this country, and which it is our duty to point out. In Dr. Pancoast’s *Operative Surgery*, it is stated at page 55, while speaking of the *vertebral artery*, that “Nuntiante Ippolito relates two cases in which this artery was tied at its origin with success.” This passage attracted our attention while preparing the review of Dr. Pancoast’s work; but not having at that time the authority to refer to, by which the statement might have

been corrected, we were forced to pass it by unnoticed. Chelius and Dr. P. both refer to the same authority, in regard of these alleged operations, viz: Froriep's *Notizen*, 1835, p. 304. But Chelius gives quite another version of the affair.

"Nuntiante Ippolito, who saw two cases of aneurism of the vertebral artery, has proposed the following mode of tying it. After having found the triangular space formed by the external jugular vein, the hind edge of the sterno-mastoid muscle, and the upper edge of the collar-bone, a cut is to be made through the skin, from its top to the base, not exceeding two inches in length. The operator continues penetrating in this direction till he reach the inner edge of the *m. scalenus anticus*, and thus the artery is easily struck upon, without injuring one twig of a nerve."—(*Froriep's Notizen*, 1835, p. 304.)—(Vol. ii. p. 527.)

The vertebral artery, then, has yet to be reached for the first time in the living body, and Dr. J. K. Rodgers, of New York, by his recent operation on the inner side of the left subclavian artery, has come nearer to a demonstration of its practicability than any other surgeon. (See *N. Y. Journal of Med.*, March, 1846.)

The second error in regard to the ligature of arteries for the cure of aneurism, is to be found in Dr. Townsend's version of M. Velpeau's surgery—one of the books at present under consideration. At page 290, volume second of this work, Dr. Mott, while speaking of the possibility of applying a ligature on "*the left subclavian within the scaleni muscles*," says, "He saw the first, and perhaps the only attempt that ever was made to tie this artery. This was by my illustrious and revered preceptor, Sir Astley Cooper. After working indefatigably with all his eminent skill and superlative tact for an hour and a half, he abandoned the operation as hopeless. The patient died in the course of a few days."

The foregoing statement has reference to a case upon which Sir A. Cooper attempted to secure the subclavian artery from "above the clavicle," in 1809; and we can readily allow that after a period of nearly forty years, Dr. Mott's recollection may not be very precise as to facts. It so happens in regard to this case of Cooper's, that Dr. Mott has furnished us with the means of correcting his own error; for, at page 303 of this same volume, he has republished an account of this identical case, from the *N. Y. Med. Repos.*, in which he himself first published it as long ago as 1810. "The situation of the man," says Dr. Mott, in the journal above mentioned, "being truly painful, and it being evident that the disease must prove in a short time fatal, if no operation were to be performed, A. C. was determined to make an attempt to take up the subclavian artery *just after it had passed betwixt the first and second scalenus muscle*." "The most careful dissection was now necessary, and by means of the edge, and sometimes the handle of the scalpel, the muscles were separated, *till the nerves going to form the axillary plexus, were laid bare*." Dr. M. was probably not so good an anatomist in 1810, as he is at present, or he would have left out all that he says in this paper about the great risk that Cooper ran of coming in contact with the thoracic duct, while laying bare the nerves of the tracheal plexus. But, independent of this oversight, his first report proves to our satisfaction that Cooper's attempt was not upon the vessel at the *inner side* of the scalenus. Dr. Mott, however, as we are credibly informed, is not willing to relinquish his more recent view of the matter; and although the inconsistency of his two statements here placed side by side has been elsewhere pointed out to him, he has made no attempt to put himself right, as he might have fairly done, in his notes to the last volume. It

becomes us, therefore, to look to other authorities in regard to this well-known case of Cooper's.

First, then, let us turn to M. Velpeau himself. "M. Ramsden," says Velpeau, (vol. ii. p. 217), "who performed his operation in 1809, appears to have been the first who actually tied the subclavian artery. Some time before him Mr. A. Cooper had tried, but in vain, to seize this vascular trunk; he tied a nerve instead of it, and the patient soon died of hemorrhage."

Mr. Samuel Cooper, under the head of axillary aneurisms says there are two modes of operating; "one by cutting below the clavicle," "the other by making the wound *above* the bone for the purpose of securing the subclavian artery at the point where it emerges from behind the anterior scalenus muscle," and in speaking of the latter mode of procedure, he alludes to Sir Astley Cooper's case, attributing the failure of the latter to the want of the aneurismal needle, which was not in use at that period. In the *London Medical Review*, for June, 1809, (vol. ii. p. 300,) is to be found the first notice of this operation, where it is spoken of simply as an attempt to secure the subclavian *from above*; all the previous attempts having been made on the vessel farther out, and *from beneath* the clavicle. Finally, Mr. South, a pupil of Sir Astley's, and attached to the same hospital with him, refers to this case in his notes to Chelius, in these words:—

"The operation of tying the subclavian artery above the collar-bone was first attempted by Astley Cooper in the spring of 1809, but "the aneurism was very large, and the clavicle was thrust upwards by the tumour, so as to make it impossible to pass a ligature under the artery, without incurring the risk of including some of the nerves of the axillary *plexus*. The attempt was therefore abandoned."—(*London Medical Review*)—(Vol. ii. p. 518.)

With these authorities against him, it is to be hoped that Dr. M. may not take it amiss that the profession are not disposed to place much reliance on the statement which he has advanced in regard to Sir Astley Cooper's operation.

Varices.—The more we approach to topics of operative surgery, the more we are diverted from the pathological details of Chelius and Mr. South to the fuller operative details of M. Velpeau. To the former we may look for a short account of the pathology of varix, and to the latter for a very full enumeration and fair appreciation of the several modes of cure. On the whole, we are less satisfied with Chelius's article on the subject of varices, which gives marked evidence of having been written long ago, than with almost any other in his book, and in one point we believe the practice which he recommends would be as inefficacious as it is unsafe and improper.

"Puncture of the varix with a lancet (anciently proposed by Hippocrates) must especially be employed in varices largely filled with coagulated blood, as well also as in those which are very painful, inflamed and much expanded; and, after the removal of the blood, pressure, together with cold applications and the horizontal posture are to be employed.

"In cases of larger size and greater extent, the skin and the vein must be *cut into*, by an incision two inches long, upon the largest knot, the escaping blood kept back with the finger, the cavity of the vein plugged with sponge or lint introduced into it, and the bleeding staunched by the application of compresses and circular bandages. If the varicose expansion be only on the leg, one cut is sufficient; if it extend to the middle of the thigh, one cut is to be made above the ankle, a second close above the knee, and if the whole thigh be affected, a third cut is to be made at equal distance. The limb is then to be bandaged, and cold

applications to it used for some days. Inflammation takes place in the vein which so spreads from the principal to the other varix, that a greater degree of plasticity arises in them, and the neighbouring varices disappear.—(*Grafte*, in his *Introduction to C. Bell's Surgery*.—(Vol. ii. p. 571.)

We hold that the danger incidental to operations on varicose veins, has less to do with the special mode of attacking them, than with the condition of these vessels at the time of operation; and that they should never be interfered with by any sort of operative procedure, whether that be the knife, the ligature, the pin, or the potential cautery, when in a state of inflammation.

We have now noticed some few of the more prominent topics calling for observation or criticism, in the first two great divisions of Chelius's work; and have not yet touched either of the remaining six, which occupy the whole of the last volume. We are reluctantly obliged, for want of space, to pass over all that is said of diseases depending on unnatural coherence of parts; all that is said on the presence of foreign bodies and retained secretions, including among other important topics the great subject of urinary concretions, and the operations for stone; all that is said of organic degenerations and adventitious growth, including an elaborate account of tumours, one of the most valuable and able chapters in the whole work; all that is said on the loss of organic parts, and on the superfluity of parts; and, finally, all that is said in the eighth or last division, on operative surgery proper, excepting only one or two questions on

Disputed and Suppressed Claims of Priority.—It is comparatively within a recent period that medical periodicals have sought with so much avidity to herald into notice every trifling operation. The surgeons of former days do not appear to have been so fond of notoriety, as at present many of them are, for feats of daring upon the living body. There is a charming modesty pervading the writings of most of the older masters of the art, who, in describing their own operations and inventions, leave to others the business of discovering their originality; and the discovery is often only made by comparing their writings with those of their predecessors. Far be it from us to detract from the credit of any one who has justly signaled himself by improving the practice of our profession, or by enlarging its means of usefulness; and yet we do believe that the present fondness for striking out bold procedures in surgery, is a morbid taste that must sooner or later yield to common sense; and that while it lasts it must have a deleterious influence upon human life. The skill required for such performances is by no means so great as many are disposed to think. And it should be a lesson to those who are continually hunting for renown in this manner, to find, that the feats by which, for a while, they imagine they have earned it, have actually been anticipated by obscure and unlettered individuals, as unknown to fame, as they are heedless of precedent. He who establishes a principle in our art, such, for example, as that of Hunter's for the treatment of aneurism, is worthy of being forever remembered; but he who establishes a process merely, exhibits a certain amount of ingenuity which most other sensible men, under the circumstances, might have displayed as well.

1. *Excision of the Lower Jaw*.—Dr. Mott, as we have already shown, has very properly relinquished all claim to having been the first in this country to follow Larrey in amputating at the hip-joint. But he is not so willing to relinquish his claim to *originality*, (he does not say *priority*), in respect to excision of the lower jaw; and yet in a note appended to his

reclamation, he apparently with reluctance refers (Velpeau's Surgery, vol. ii. p. 917) to Dr. W. H. Deadrick, of Tennessee. We need not at present allude to the erroneous account of Dupuytren's operations on the jaw as given in the "Report of a Committee," &c., which we find reprinted in the second volume of this translation, (p. 902.) The "Clinique" of Dupuytren, (vol. iv. p. 628-33,) has only to be consulted to put this matter right. Dr. Mott was, perhaps, after Graefe, the first to publish an account of an operation for the removal of a portion of the lower jaw. Thus far, but no farther, should his claims be urged; and such appears to be the opinion of Mr. South, who gives the following summary, as to the result of all that has been said upon this question.

"As will be presently seen, DEADRICK was the first who, in 1810, cut away the side of the lower jaw; in 1812, DUPUYTREN sawed off a large portion of the front of the jaw; in 1816, ANTHONY WHITE removed half a necrosed jaw from the socket; in 1818, ASTLEY COOPER sawed off the projecting part of the chin; in 1821, GRAEFE removed the front of the jaw; and in the same year, one-half of the lower jaw, which he exarticulated, and the patient lived: MOTT's first operation, in which half the jaw was removed, by sawing through the chin and across the ascending branch, was performed in March, 1822; his second, in which he exarticulated one-half, in May, 1822; died on the evening of the fourth day. CUSACK removed the left half of the jaw in 1825, first sawing through the horizontal and afterwards the ascending branch, and then exarticulating the condyle. These several cases will be referred to presently.

"I have thought it well to give this brief historical account of the amputations of the lower jaw, the authorities for which the reader can refer to; because the French claim excision of the jaw for DUPUYTREN, and the Americans, exarticulation of the jaw for MOTT; but neither of these justly-celebrated surgeons have title to the origination, or to the first performance of either operation, and their reputation will lose nothing by the just meed of merit being awarded to others, of whom, probably, their too ardent admirers had no cognizance."—(Vol. iii. p. 745.)

2. *Excision of the Upper Jaw.*—The upper jaw has been attacked in several modes: First, by scooping and chiseling; in this way tumours and morbid growths of great size, and in some instances perhaps involving the whole bone, were removed, centuries ago. Secondly, by the spring saw; in this way the greater portion of the bone has been excised without touching the morbid mass at all. To Dr. A. H. Stevens, of New York, belongs the credit of this procedure. M. Velpeau has properly awarded him such credit; but neither Chelius, nor Mr. South, has alluded to the operation. Thirdly, by amputation, or extirpation; in which the bone is wholly removed by detaching it from the other bones of the head with which it is naturally united. This last operation belongs to M. Gensoul, of Lyons; but Mr. Lizars, of Edinburgh, appears to have, prior to the publication of M. Gensoul's memoir, shown the feasibility of the procedure.

3. *The Speculum Oris, or Screw Lever.*—"We cannot permit ourselves to believe," says Dr. Mott, (Velpeau, vol. ii. p. 882,) "that any surgeon of rank, possessing the high moral character which it is presumable should, or we might say must, necessarily belong to at least the distinguished members of the medical profession, as the guarantee of eminence and respectability, would willingly or wilfully deprive another of the honour that belongs to him. It is therefore through sheer inadvertence or ignorance, which some might call culpable, of the true facts of the case, that might have permitted a surgical gentleman * * * to promulgate, as it were, ex cathedra and 'by authority,' to the rest of the world, the following, * * without a single word of qualification in behalf of any other individual whatever."

It is a good rule that works both ways, and Dr. M. should have remembered that what he was writing in his own defence, about excision of the lower jaw, might, with equal force, be turned against himself in other quarters. We need not allude to claims for the suppression of which he is in some degree accountable, as joint editor of a work purporting to comprehend all the latest improvements and discoveries in the surgery of America; under which head we might point to at least one omission, remarkable only to those who are aware of the circumstances in regard to a recent operation for the relief of stricture of the œsophagus, which was original as respects this disease. But we cannot pass over his rather strange assumption to the authorship of what he calls his screw lever for overcoming rigidity of the lower jaw, the fac simile of which as he had depicted it, may be found by any one who takes the trouble to turn to the twentieth plate of Heister's Surgery, vol. ii. page 31. Heister, indeed, would have this instrument employed only as a *speculum oris*. As a means for forcing open rigid contractions of the jaw he would not recommend it. He even declares that for such purpose every prudent surgeon should reject it as pernicious. And his opinion is borne out by a fact which we see mentioned in Dr. Townsend's Supplementary Appendix to the second volume of Velpeau, where it is stated that this very instrument in the hands of one of Dr. Mott's most skilful and accomplished pupils, was the means of fracturing the jaw-bone.

We must now bring to a close our hurried and imperfect notice of these two voluminous and important publications. In the work of Chelius, as translated and amplified by Mr. South, the practitioner will find the fullest and ablest digest extant, of all that relates to the present advanced state of surgical pathology; and a sufficient account of the principles and processes of operative surgery, to enable him, with a fair knowledge of anatomy, and a little ingenuity of his own, to undertake and execute any operation he may be called upon to perform. In the work of M. Velpeau, on the other hand, besides the miscellaneous, and sometimes valuable additions of the editors, he will find the whole art of operative surgery regularly systematized, and in such a manner that there is scarcely an operation possible, and none that he will be called upon to perform, for which he may not only find a precedent, but also all the details necessary for carrying it into successful execution.

With the exception of a certain redundancy of words, and a disposition to indulge rather too often in what may be called a *magno cum strepitu* strain, Dr. Townsend's labours, as editor and translator of M. Velpeau's work have, in a literary point of view, been very creditably performed. His notes and additions, as well as those of Dr. Mott, not always in keeping with the general character of the original work, are printed in the same type as the text, and rather too intimately incorporated with it, being usually separated only by brackets. The typography of this work, and the atlas of lithographic plates that accompany it, are worthy of commendation. Mr. South, as translator and editor of Chelius, has, after the original, dropped the usual titles of address. The frequent use of the German *Mein Herr* would certainly have been rather awkward; but the English *Mr.* and the French *M.* are easily introduced, and have the advantage, not a trifling one, of giving the reader to understand that the individual thus mentioned is still upon the land of the living. Mr. South attempts no refinements of diction; he speaks in unaffected English; but he is sometimes too English to be elegant. We have noticed a few cockneyisms, such as "immediately"

for immediately after;" a few slang terms, such as "gimcrackeries" and "nicknackeries," and a few technical terms that might as well have been translated in accordance with common use. "Shoulder-blade" and "blade bone" will do well enough for scapula; "collar-bone" for clavicle; "shin-bone" is quite endurable; but "spoke-bone" for radius, is rather new; and "rump-bone" for sacrum, whatever it might have been in the days of Cromwell and the Long Parliament, is at present, at least in surgical terminology, rather obsolete. The mechanical execution of this work is also quite commendable.

J. W.

ART. XIII.—*Lectures on the Physical Phenomena of Living Beings.*

By CARLO MATTEUCCI, Professor in the University of Pisa. Translated under the Superintendence of JONATHAN PEREIRA, M. D., F. R. S., &c. London: 1847. 12mo. pp. 435.

IN 1844, Professor Matteucci was appointed by the government of Tuscany to deliver, in the University of Pisa, a course of lectures on the Physical Phenomena of Living Beings. These lectures were subsequently published; and their popularity is attested by the fact, that they have already passed through two editions in Italy, and one in France.

The present translation has been made from a copy furnished to the editor by Professor Matteucci, and containing a very large number of additions and corrections. The numerous errors of the French edition,—so far as matter is concerned more complete than the Italian ones,—have been corrected by the author in the present translation, and he has also embodied in it the results of his more recent investigations. A few notes and some additional wood cuts have been appended by the editor, Dr. Pereira. In compliance with the request of Professor Matteucci, the work is most appropriately inscribed to Dr. Faraday, "to whom," as the editor justly observes, "the physical sciences are indebted for some of the most brilliant and splendid discoveries of this prolific age."

Lecture I. is introductory and treats of generalities.

"It is perhaps the first time," says Prof. Matteucci, "that a course of lectures, under this name, has been introduced into medico-physical education. We have no work which treats exclusively of this subject: the germs, indeed, are scattered here and there, but hitherto they have never been viewed in the light most favourable to their development." (p. 2.)

Living beings are endowed with the general properties of all natural bodies. Living organized matter is extended, impenetrable, divisible, and porous. How can we believe that caloric, electricity, light, and chemical affinity, act on these beings in a manner entirely different from that which they are known to do on the other bodies of nature? Many of the differences between, and even of the presumed opposite characters of, organic and inorganic bodies, found in the works on Physiology, have little or no value.

"Animals and vegetables grow by intussusception, minerals by juxtaposition;—in other words, in the former, growth takes place by internal juxtaposition, in the latter by external juxtaposition; for organized bodies conceal in their interior the